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An evaluation of the first year of Antioch College's experimental French 1 course features the use of student assistants, the development of acetate audiovisual aids, and organization of class time. Groups are compared, and results in achievement on a language placement examination and on a teacher rating scale are discussed. An appendix contains examples of an acetate visual, teaching rating scale, and background data sheet. For a related document see FL 000 400. (DS)

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Experiment in French Language Instruction

1958-1959

FL 001 179

November, 1959
Antioch College
Yellow Springs, Ohio

the study • two groups of students were compared: an experimental group which was taught in large part by specially trained student assistants and which employed certain newly developed audiovisual aids as basic instructional material, and a control group which was taught in its entirety by the regular course instructor and which employed conventional teaching procedures

the hypotheses • that students taught by the experimental method would achieve as great a degree of learning as those taught by the conventional method

• that students taught by the experimental method would express as great a degree of satisfaction with the course and the instructor as those taught by the conventional method

the findings • members of the experimental group generally performed better than did members of the control group; the differences in favor of the experimental group were reflected by:

- the mean scores of the experimental group which exceeded those of the control group on six of eight measures employed

- an analysis of "gain" scores of both groups in which the scores of the experimental group differed significantly from the scores of the control group

- members of the experimental group generally expressed a higher degree of satisfaction with the course and the instructor than did the members of the control group; these differences were reflected by:

  - the students' over-all ratings of teacher effectiveness on a five-point teacher rating scale, and

  - an analysis of each of the items on the teacher rating scale on which the members of the experimental group rated the course instructor higher on four of five items than did the members of the control group

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EXPERIMENT IN FRENCH LANGUAGE INSTRUCTION

Antioch College, 1958-1959

This is a report on the first year of a two-year study Antioch College is conducting with the aid of a grant from the Fund for the Advancement of Education, Ford Foundation, on the use of new teaching procedures in French language instruction.

The major purpose of the study was to see whether through the use of new instructional methods the College could achieve significant economies in its program of language instruction while maintaining and possibly improving the quality of its language program. The following interim report describes the background of the study, the teaching procedures employed, the hypothesis and design of the study, and the results of the study to date.

The new teaching procedures have been developed by Herman Schnurer, Chairman of the Department of Languages and Professor of French, who taught the experimental and control classes employed in the study. The study has been under the direction of Samuel Baskin, Director of Educational Research at Antioch College, and Robert Boyd, Assistant Professor of Education. Other staff members participating in the study included Edward Clark, Audiovisual Librarian, who served as audiovisual consultant to the study group; Mrs. Corinne Barger who assisted Mr. Clark and who helped in the development of many of the study materials; and Mrs. Monique Verger-Roeth and Miss Mary Ann Oliveau, who served as student laboratory assistants and conducted all laboratory classes. Mrs. Ruth Churchill, College Examiner, helped in the planning of the evaluation procedures used in the study. W. B. Alexander, Dean of the Faculty, and Morris Keeton, Chairman of the College's Educational Policy Committee, served in an advisory capacity in the planning and development of the study.

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I. Background of the Study

Since 1951, language enrollments at Antioch College have more than quadrupled. A study of language enrollments through the period 1951-1958 shows an increase in the number of students taking French from 48 in 1951-52 to 210 in 1958-59, and an increase in total language enrollments from 117 in 1951-52 to 548 in 1958-59. Added to this picture has been the increasing pressure the College has felt for language instruction as a result of its new program of Antioch Education Abroad. This program, now in its third year of operation, is designed to enable Antioch students to spend a full year abroad in study, work, and residence at no greater cost than a regular year at Antioch. Under this program students earn a comparable number of study and work credits to those they would earn in a year at Antioch. Some sixty students participated in this program last year, approximately one hundred are expected to take part in the program in the present school year, and it is anticipated that as many as two hundred students will regularly participate in the program once it has become fully established.

With these factors in mind, Professor Herman Schnurer, Chairman of the Department of Languages and Professor of French, sought to develop ways by which greater economies could be achieved in the program of language instruction without impairing its educational quality. Aside from this element of numbers and costs, Mr. Schnurer had long felt that too much of the teacher's time in a beginning language course was taken up with certain subject matter that could be handled in other ways; that much of this material was divisible, and that many elements in it (counting, the days of the week, conjugating, certain elements of pronunciation, and so forth) could be handled just as well by trained laboratory assistants working from previously prepared audiovisual and workbook materials. Furthermore, Mr. Schnurer felt that as new structures were spelled out with the aid of these audiovisual and workbook materials, the student would actually be more fully immersed in the subject matter than was heretofore the case. The hope was that these newer procedures would not only make for the better use of instructional time and free the instructor for more independent work and research of his own, but also that they would enable him to center more of his classroom time on more general lecture and discussion materials. In its first stages the study has been directed toward the development and evaluation of these new methods of instruction for French I only; it is hoped, however, that the methods employed will be applicable to other levels and areas of language instruction.

II. Description of the Experimental Teaching Procedures

Development of the Acetate Lesson Units

The new program in language instruction reorganizes the teaching procedures so that a major portion of the classroom time previously conducted by the instructor is now handled by two student laboratory assistants. These assistants work from a series of previously prepared lesson units which have been drawn directly on acetate visuals or transparencies and which have been mounted for use with an overhead projector. These acetate lesson units are accompanied by tape recorded sound and are designed to cover the basic

instruction materials for French I. A total of eighteen of these acetate film lessons has been produced. The units vary in length but average about twenty cells per lesson unit. The acetate medium has been selected for use for several reasons: because of its economy, with each visual costing about 10¢ per sheet and requiring no chemical processing as does the photographic or diazo film usually used with an overhead projector; because they easily lend themselves to alteration by simply erasing the materials on the film, and because the visuals (as is the case with other materials used with the overhead projector) can be shown in varying degrees of light or darkness. A copy of one of these acetate sheets is shown as Item 1 of the Appendix.

Organization of Class Time

The new plan changes the method of teaching French from one which made use of separate sections of about twenty students each (with each section meeting five times a week with the instructor over a period of twelve weeks) to one which eliminates sectioning and employs a pattern wherein students meet twice a week as a full group with the instructor over a period of twelve weeks, and four times a week (also a full group) with the student laboratory assistants (with each meeting with the instructor and each laboratory session running about 1½ hours). Assuming an enrollment of sixty students in French I, typical patterns of instructional time under the regular and experimental methods are as follows:

Regular Method of Instruction If total of 60 students enrolled:	Experimental Method of Instruction If total of 60 students enrolled:
Three separate sections of 20 each; students meet for an hour five times a week with instructor, and are expected to do 16 hours of outside work.	One section of 60 students meets twice a week with the instructor (total of 3 hours) and four times a week with student laboratory assistants with each lab session running 1½ hours. In addition, students are expected to do 11 hours of outside work.
Total in and out of class time required of students: 21 hours.	Total in and out of class time required of students: 21 hours.
Total supervised instructional time received by students: 5 hours.	Total supervised instructional time received by students: 9 hours (3 hours with instructor plus 6 hours with lab assistants).
Total number of instructor contact hours needed to handle 60 students: 15 hours (3 sections meet 5 times per week with instructor).	Total number of instructor contact hours needed to handle 60 students: 3 hours (1 section of 60 students meets twice a week with instructor).

The hour and a half laboratory meeting was organized in such a way that it was broken into three units of approximately thirty minutes each. One third of the laboratory time was devoted to a presentation of the acetate lesson materials, one third to individual work in standard language laboratory

booths set up for this purpose, and one third of the laboratory time was devoted to drill and practice exercises in face-to-face contact with the student assistants. The regular class meetings with the instructor (two 1½ hour meetings per week) were devoted to a review and clearing up of questions relating to the laboratory materials, briefing and preparation for the next laboratory meeting, and lectures and discussions on French civilization.

III. Hypotheses

Two principal hypotheses were to be explored:

1) that a group of students participating in an experimental course in French I, making use of certain audiovisual and workbook materials and taught in large part by specially trained student assistants, will demonstrate a degree of learning and achievement in French I as great as that of a comparable group of students participating in the regular course in French I, not using these audiovisual and workbook materials and taught in its entirety by the course instructor;

2) that a group of students participating in an experimental course in French I, making use of certain audiovisual and workbook materials and taught in large part by specially trained student assistants, will demonstrate a degree of satisfaction with the course and the instructor as great as that of a comparable group of students taking the regular course in French I, not using these audiovisual and workbook materials and taught in its entirety by the course instructor.

IV. Design of the Study

The experimental design called for the employment of control and experimental groups to be taught by the conventional and experimental methods with each group to be held responsible for covering the same course materials and meeting the same course objectives. Both groups were to be matched (as measured by pre-tests and questionnaire data) on a number of variables including language learning aptitude, general scholastic ability, French language background and skills, experience abroad, years in college, and male-female distribution. A series of post-tests was employed at the end of the study quarter in order to determine whether there were differences in the achievement levels of the control and experimental groups. In addition, a teacher-rating scale was employed to check on student satisfactions and dissatisfactions with the teaching procedures used. A fuller discussion of the instruments used is presented in a later section describing the measures used in the study. The control class was taught during the first quarter of the school year and the experimental class was taught during the second quarter.

Subjects of the Study

The subjects for both the control and the experimental classes were all the students who had enrolled for French I. The control class was made up of those students who had enrolled in French I in the fall quarter of the school year 1958-59 (Quarter I). The experimental class was composed of

students who had enrolled for French I in the winter quarter of the school year 1958-59 (Quarter II). A total of fifteen students was included in the control class and a total of twenty-seven students was included in the experimental class.[1]

Class Organization

All the students in the control class in the fall quarter were taught by the conventional teaching procedures. These procedures were such that the students met in regularly scheduled class meetings with the instructor five times a week (one hour per meeting), with the instructor handling the presentation and discussion of all class materials. The acetate visuals and accompanying tapes were not employed with the control group.

The experimental class met with the instructor twice a week (1½ hrs. per meeting) and four times a week (also in 1½ hr. sessions) with the laboratory assistants. All laboratory sessions were conducted by the student assistants, with the class meeting as a full group for the presentation of the acetate lesson units and then subdivided into smaller units (as Laboratory Groups I and II) for purposes of handling certain drill and laboratory exercises. A detailed outline of the organization of the laboratory session is shown in Figure 1.

Figure 1 - Organization of Laboratory Session, Experimental Section, French I

Time	Language Laboratory	Audiovisual Classroom	Seminar Room IV
9:30	All members of Laboratory Group II practice lesson materials in individual booths	One-half of members of Laboratory Group I (Section Ia) meet for vocabulary and lesson drill with student assistant in small groups	One-half of members of Laboratory Group I (Section Ib) meet for vocabulary and lesson drills with student assistant in small groups
9:58 to 10:00	Break period to change classrooms		
10:00	All members of Laboratory Group I practice lesson materials in the individual booths	One-half of members of Laboratory Group II(Section IIa) meet for vocabulary and lesson drills with student assistant in small groups	One-half of members of Laboratory GroupII (SectionIIb) meet for vocabulary and lesson drills with student assistant in small groups
10:28 to 10:30	Break period to change classrooms		
	Total class meets for presentation of next day's lesson		
10:55	Class is dismissed.		

[1]It is expected that at least sixty students will register for French I during the first quarter of the 1960-61 school year. Should this registration be achieved, all of these students will be taught by the experimental method and as one class group (in contrast with the regular procedure wherein separate class sections would have been arranged for each group of approximately twenty students).

Instruments and Measures Used in the Study

A number of instruments were employed in the study to check on the comparability of the control and experimental groups and to measure the achievements of the groups at the end of their study quarter.

Pre-tests used to check on the comparability of the groups included the Verbal Skills Examination of the College Board Entrance Examination and a Vocabulary Test of English Skills as measures of scholastic ability; the Yale II Artificial Language Test as a measure of language aptitude, and the Antioch Language Placement Test as a measure of French language background at the time of taking the course. In addition, the groups were studied as to distribution with regard to year levels, male-female composition, and background experiences (travel abroad, use of French at home, etc.) in French.

Post-test measures included the College Board Entrance Examination Achievement Test in French Reading as a measure of the individual's vocabulary, grammar and reading comprehension skills; the Cooperative French Listening Comprehension Test as a measure of audio-comprehension; the re-administration of the Antioch Language Placement Test as a measure of both gain and post-course achievement, and several instruments specially devised by the instructor and the study staff, and designed to measure dictation skills and reading and speaking ability.[1] With the exception of the tests of dictation skills, reading and speaking ability, all measures employed were standardized instruments.[2]

In addition to these measures of achievement, it was reasoned that the attitudes of the students toward the teacher and the course should be examined in that such attitudes may well affect the learning process. Toward this end student judgments of the instructor and the course were obtained through the use of a teacher rating scale. A copy of the teacher rating scale is included as Item 2 of the Appendix.

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[1]The test of dictation skills was scored by a frequency of rights minus wrongs. Two graders were used and identical scores were obtained. The tests of reading and speaking ability (four separate tests) were scored by means of rating scales. Two judges scored these tests independently. Pearson's product-moment coefficient of correlation ("r") for the sub-scales of these tests ranged from .67 to .95 for the first test, from .61 to .92 for the second test, from .61 to .92 for the third test, and from .53 to .61 for the fourth test.

[2]The Vocabulary Test of English Skills and the Antioch Language Placement Test were developed at Antioch College and have been in use over a period of years. Copies of the tests may be obtained for inspection purposes by writing to Professor Ruth Churchill, College Examiner, Antioch College, Yellow Springs, Ohio. The College Board Entrance Examination is available through the College Entrance Examination Board, Princeton, New Jersey. The Cooperative French Listening Test is available through the Educational Testing Service, Princeton, New Jersey. The Yale II Artificial Language Test is available through the Educational Records Bureau, New York, New York.

V. The Comparability of the Groups

Table 1 presents a summary of the analyses of the data with respect to the comparability of the control and experimental classes on the measures of scholastic ability (the Verbal Skills Examination of the College Board Entrance Examination ahd the Vocabulary Test of English Skills), language aptitude (Yale II) and French language skills at the time of taking the course (the Antioch Language Placement Test).

No significant differences were found between the groups on each of the measures of comparability.

Table 1: The Comparability of the Groups: Scholastic Ability, Language Aptitude, and French Language Skills

Comparison	$\bar{x}$	s^2	N	t	df	signif.
Scholastic Ability						
Verbal Skills Examination (CBEE)						
experimental	574.44	9348.67	25			
control	609.87	4774.71	15	.01	39	ns
Vocabulary Test of English Skills						
experimental	32.12	129.56	26			
control	35.53	88.06	19	1.10	44	ns
Language Aptitude						
Yale II (Artificial Language Test)						
experimental	91.74	816.15	27			
control	80.43	392.15	14	1.48	37	ns
French Language Skills						
Antioch Language Placement Test						
experimental	27.56	93.75	9			
control	27.50	13.17	8	.04	16	ns

In addition to these measures of comparability, two additional analyses were made of the groups: the first of these dealt with the numerical composition of the groups in an attempt to determine whether the groups were comparable in their ratio of male to female students, freshman to upperclass students, and the proportion of students with some and no experience in French; the second involved a re-grouping of the members of the control and experimental groups by these subdivisions of year levels, male-female distribution, and background experiences in French, and an analysis of the comparability of the groups within each of these subdivisions on the measures of scholastic ability and language aptitude. While none of these comparisons proved to be statistically significant, two factors are of note here: (1) the control group contained a considerably higher proportion of upperclass students to freshman students than did the experimental group, and (2) the control group contained a considerably higher proportion of students who had some previous background experiences in French. Thus, while we may conclude that the groups were comparable with respect to the over-all measures of scholastic ability, language aptitude, and French language skills at the time of taking the course, a further analysis of the data offers some evidence that there were some differences in group make-up (althouth not statistically significant) that tended to favor the control group. These additional analyses are shown in Tables 2 and 3.

Table 2: The Comparability of the Groups: Year Level, Background Experiences in French, and Male-Female Distribution Within Each Group

Comparison	Control	Experimental	df	x^2	signif.
Year in College					
Freshman	9	22	1	1.93	ns
Upperclass	6	4			
Background[1]					
some background	6	5	1	1.17	ns
no background	9	21			
Sex					
male	8	14	1	.13	ns
female	7	12			

[1]Information for this item was obtained from a background data sheet administered to all students in an attempt to determine their previous experience in the use of the French language, travel abroad, home influence, etc. A copy of the background data sheet is included as item 3 of the Appendix.

Table 3: The Analysis of the Groups by Subdivisions Within Each Group

Comparison	$\bar{x}$	S^2	N	t	df	signif.
A. Year Level						
1. Freshmen vs. Freshmen						
Verbal Skills Examination (CBEE)						
experimental	577.13	8827.41	23			
control	606.62	5701.71	8	.09	10	ns
Vocabulary Test of English Skills						
experimental	32.22	127.36	23			
control	32.80	136.67	10	.13	18	ns
Yale II (Artificial Language Test)						
experimental	94.78	855.18	23			
control	83.38	385.14	8	1.2	21	ns
2. Upperclassmen vs. Upperclassmen						
Verbal Skills Examination (CBEE)						
experimental	543.50	28085.00	2			
control	613.57	4459.00	7	.6	2	ns
Vocabulary Test of English Skills						
experimental	31.33	217.50	3			
control	38.56	188.63	9	.75	4	ns
Yale II (Artificial Language Test)						
experimental	74.25	323.00	4			
control	76.50	447.80	6	.2	10	ns
B. Male-Female Distribution						
1. Male vs. Male						
Verbal Skills Examination (CBEE)						
experimental	571.64	63704.23	14			
control	624.14	3552.50	7	.7	14	ns
Vocabulary Test of English Skills						
experimental	32.71	44.23	14			
control	33.40	119.89	10	.177	15	ns
Yale II (Artificial Language Test)						
experimental	91.13	1112.57	15			
control	63.11	373.25	9	1.6	24	ns
2. Female vs. Female						
Verbal Skills Examination (CBEE)						
experimental	578.00	10250.00	11			
control	597.38	6122.28	8	.005	16	ns
Vocabulary Test of English Skills						
experimental	31.42	232.09	12			
control	37.89	51.38	9	1.29	18	ns
Yale II (Artificial Language Test)						
experimental	92.50	511.90	12			
control	91.60	285.25	5	.09	10	ns

(continued)

Table 3 continued

Comparison	$\bar{x}$	S^2	N	t	df	signif.
C. Background Experience in French						
1. Students with Some Background Experience in French						
Verbal Skills Examination (CBEE)						
experimental	513.25	6323.00	4	3.174	3	ns
control	548.33	3264.50	3			
Vocabulary Test of English Skills						
experimental	24.40	6.25	5	1.35	6	ns
control	31.50	157.00	6			
Yale II (Artificial Language Test)						
experimental	88.00	2201.50	5	.34	6	ns
control	80.00	374.67	4			
2. Students with No Background Experience in French						
Verbal Skills Examination (CBEE)						
experimental	586.10	9378.50	21	.014	32	ns
control	625.25	4192.64	12			
Vocabulary Test of English Skills						
experimental	33.95	142.25	21	.4	17	ns
control	37.38	54.83	13			
Yale II (Artificial Language Test)						
experimental	92.59	587.00	22	1.4	22	ns
control	80.60	441.33	10			

VI. Results

The Achievement of the Groups

Table 4 presents a summary of the results on each of the measures of post-course achievement of the control and experimental groups. No significant differences were found on any of the measures. The "t" ratios were, in fact, extremely small. We may therefore accept the null hypothesis that insofar as these measures were concerned there were no differences between the achievement levels of the experimental and the control groups.

Table 4: The Post-Course Achievements of the Experimental and Control Groups

Comparison	$\bar{x}$	S^2	N	t	df	signif.
College Board Achievement Test in French Reading						
experimental	435.46	2748.42	26			
control	429.73	2333.07	15	.35	39	ns
Antioch Language Placement Test						
experimental	48.26	280.12	27			
control	45.29	177.60	14	.63	39	ns
Cooperative French Listening Test						
experimental	180.62	92.09	26			
control	181.71	192.53	14	.26	38	ns
*Test of Dictation Skills						
experimental	86.92	617.75	26			
control	89.69	1017.23	13	.27	37	ns
*Test of Reading Ability						
a. experimental	74.4	87.2	25			
control	70.69	520.98	13	.56	36	ns
b. experimental	5.28	1.40	25			
control	4.15	3.82	13	1.92	36	ns
*Test of Speaking Ability (connected discourse)						
a. experimental	30.44	309.61	25			
control	30.23	303.72	13	.04	36	ns
b. experimental	22.28	92.60	25			
control	21.92	94.69	13	.11	36	ns

*Staff developed instruments

Table 5 presents a comparison of the achievements of members of the experimental and control groups on each of three measures where the data are analyzed by various subdivisions within each group. No significant differences were found on any of these subdivisions.

Table 5: An Analysis of the Achievement of the Experimental and Control Classes by Subgroups Within Each Class

Comparison	$\bar{x}$	S^2	N	t	df	signif.
Freshman vs. Freshman						
College Board Achievement Test						
experimental	436.86	3046.98	22			
control	428.00	1304.50	9	.53	29	ns
Antioch Language Placement Test						
experimental	48.57	307.26	23			
control	44.89	129.36	9	.70	30	ns
Cooperative French Listening Test						
experimental	180.27	104.49	22			
control	178.67	134.00	9	.36	29	ns
Upperclass vs. Upperclass						
College Board Achievement Test						
experimental	427.75	1480.92	4			
control	432.33	4431.87	6	.14	8	ns
Antioch Language Placement Test						
experimental	46.5	169.67	4			
control	46.0	317.5	5	.49	7	ns
Cooperative French Listening Test						
experimental	182.5	30.33	4			
control	187.2	299.2	5	.58	7	ns
Male vs. Male						
College Board Achievement Test						
experimental	432.29	2844.53	14			
control	419.63	4193.13	8	.47	20	ns
Antioch Language Placement Test						
experimental	46.13	259.41	15			
control	45.29	194.24	7	.13	20	ns
Cooperative French Listening Test						
experimental	180.43	59.80	14			
control	176.75	262.79	8	.60	20	ns
Female vs. Female						
College Board Achievement Test						
experimental	439.17	2856.88	12			
control	441.29	2259.90	7	.13	17	ns
Antioch Language Placement Test						
experimental	45.92	518.99	12			
control	45.29	190.57	7	.08	17	ns
Cooperative French Listening Test						
experimental	180.83	138.52	12			
control	188.33	40.67	6	1.75	16	ns

(continued)

Table 5 continued

Comparison	$\bar{x}$	S^2	N	t	df	signif.
Some Background Experience in French						
College Board Achievement Test						
experimental	439.2	3698.2	5			
control	434.5	5213.1	6	.12	9	ns
Antioch Language Placement Test						
experimental	58.4	303.3	5			
control	48.2	207.7	5	1.01	8	ns
Cooperative French Listening Test						
experimental	183.2	69.2	5			
control	182.	260.8	6	.16	9	ns
No Background Experience in French						
College Board Achievement Test						
experimental	434.57	2691.56	21			
control	426.56	796.28	9	.54	28	ns
Antioch Language Placement Test						
experimental	45.95	259.0	22			
control	43.67	176.5	9	.41	29	ns
Cooperative French Listening Test						
experimental	180.0	99.2	21			
control	181.5	171.14	8	.29	27	ns

Gain Scores on Language Placement Examination

The Antioch Language Placement Test was administered initially as a test of comparability. Those students who had some French in the past took the test. At the end of both quarters all the students took the Antioch Language Placement Test as a post-achievement test. For certain students there were pre- and post-results for this test. It was possible, therefore, to have a gain score for these students.

Scale scores were obtained and a "t" test was administered to determine whether the control and experimental groups differed in terms of gains made. Table 6 indicates a significant difference at the .05 level in favor of the experimental group on this measure of gain. Inasmuch as this data involved only those students in both groups who had some experience with French, they may indicate some special values of the experimental methods over the control for the student with some background in French. The data on this question are, however, limited and further research is needed on this question before any such conclusions can be drawn.

Table 6: Gain Scores of Experimental and Control Groups on the Antioch Language Placement Test

Comparison	$\bar{x}$	S^2	N	t	df	signif.
experimental	30.67	218.81	9	2.51	14	.05
control	16.36	57.78	7			

Student Attitude Toward the Control and Experimental Teaching Procedures

Table 7 contains a summary of the results of the comparison of the classes on the Teacher Rating Scale[1]. This scale was employed in an attempt to obtain some measure of student satisfaction and dissatisfaction with the regular and experimental teaching procedures. The table is to be read in such a way that the lower the score the higher is the rating.

No significant differences were found between the groups in their over-all ratings of the teacher and the course.

Table 7: Student Attitudes Toward the Control and Experimental Procedures

Comparison	$\bar{x}$	S^2	N	t	df	signif.
1. Presents what he has to say clearly, at your level of understanding						
experimental	2.50	1.27	16	.48	25	ns
control	2.64	.84	11			
2. Displays an active personal interest in you, as by being easy to approach, willing to help						
experimental	2.25	1.41	16	1.97	25	ns
control	1.54	.48	11			
3. Gets you interested in his subject						
experimental	1.75	.56	16	.85	25	ns
control	2.09	1.29	11			
4. Makes learning active for you, as by stimulating thinking, encouraging participation, guiding discussion						
experimental	2.00	2.07	16	.51	25	ns
control	2.27	1.44	11			
5. Knows subject thoroughly enough to organize course and relate it to others; integrates materials, answers questions						
experimental	2.06	1.27	16	1.21	25	ns
control	2.64	1.63	11			
6. Over-all Rating						
experimental	10.56	18.06	16	.80	25	ns
control	11.45	1.03	11			

[1]Because the scale is in part dependent on the student's having had some previous course work at Antioch and because many members of the control group were in their first quarter of courses at Antioch, the teacher rating scale was not administered to the particular control group under study. Instead, instructor-ratings of a previous year (when the course was taught by the conventional method by the same instructor, but where the students had experienced more than one quarter at Antioch) were employed as a basis for obtaining a measure of student attitudes toward the conventional method of teaching. It was possible to administer the teacher-rating scale to the students in the experimental section, as this course was taught during the second quarter of the school year by which time all students were able to rate the course in terms of other course experience at Antioch.

While the differences did not prove to be significant, in general the experimental class did rate the instructor higher than did the control (or comparison) class. They believed the instructor to be well organized and to be in control of his subject sufficiently to make it interesting and integrated. In only one area (Item 2) was the control class rated better than the experimental class.

One further result should be noted: the variance (S^2) of the experimental class. It was extremely wide ($S^2 = 18.06$), indicating a wide variation in the evaluation of the teacher. Obviously a group of students thought extremely highly of the teacher (and with caution perhaps of the teaching procedures in general) while another cluster of students thought very poorly of him. In terms of the wide scatter on the achievement results this particular finding should not be unexpected. In reference to individual scores on the teacher rating scale, the interpretation stated above was true for most cases.

In general, we may conclude that in terms of our evaluation instrument, no significant differences were established between the two classes in the rating of the teacher. The null hypothesis stating that no differences existed between control and experimental classes on the students' rating of the teacher cannot be rejected.

There was space provided on the Teacher Rating Scale for the students to write in their comments about the teacher and the course. A few have been included here to convey something of the students' feelings regarding these newly employed teaching procedures:

"...The variety of activities is most helpful as it touches upon each weakness you might have and also keeps interest very high. I feel that I have learned more French in this class and under this method than I have in any other language course I have taken."

"The method is superb. I have studied languages several ways and find this presentation the most successful."

"It has its good and bad weeks for class interest, genuine communication of knowledge, etc. But on the whole it will end up by doing an extraordinary job of teaching French quickly and well."

"My high school French was a 'passive' French course, here with Mr. Schnurer it is 'active' French. Just judging by the rest of the class whom I have had a chance to observe, I think Mr. S. has done wonders and has accomplished almost miracles with those people who never spoke a word of French before. If anyone had told me a year ago that after five weeks of French I would be able to read a book in the language, I would have told them it was impossible."

(continued)

"Mr. Schnurer is using an experimental method involving slides, speech booths, and original manuals and other devices. The method is potent and pleasant--I can read and speak French with unexpected facility after ten weeks and the method has to some extent cut down the drudgery generally involved in learning a foreign language. 'Vive la methode'! However, we see Mr. S. only twice a week and his lectures on French culture, customs, and food are rather draining. I don't believe I'd like to be in his class under the old system."

Further Analysis of the Data

The results of the post-tests were placed on four separate graphs. This graphing is shown in Figures 2 to 5. On the first three graphs, there was a much more noticeable spread among the subjects in the experimental sections than among the subjects of the control class. The spread was the result of both higher and lower scores made by the experimental subjects as compared to the control subjects. In view of the fact that both classes were comparable initially, it would seem that the resultant spread among the experimental subjects could have been a function of the experimental procedures. If such is the case, it would appear that the present experimental procedures enabled certain students to do much better than would have been expected if these students had taken French under the same teacher with conventional teaching methods. Conversely, certain students who may have done moderately well under conventional teaching procedures, as indicated by their pre-test results, did less well under the present experimental procedures.

The graphs also illustrate a result which the statistical treatment of the data partly obscures. One member of the control group on two of the four post-tests scored much higher than any other member of his class. There was no one member in the experimental class that had a similar pattern. Although there was generally a greater spread among the subjects in the experimental class, the control class had one or two members below the lowest scoring member of the experimental class on all four tests. These results may have been the function of particular individuals rather than the function of class procedures. The causes for these particular results could not be determined at this stage of the research. In the forthcoming series of stages in our research project, the staff has planned to examine this area thoroughly.

Figure 2
Individual Scores on the College Board Achievement Test in French Reading

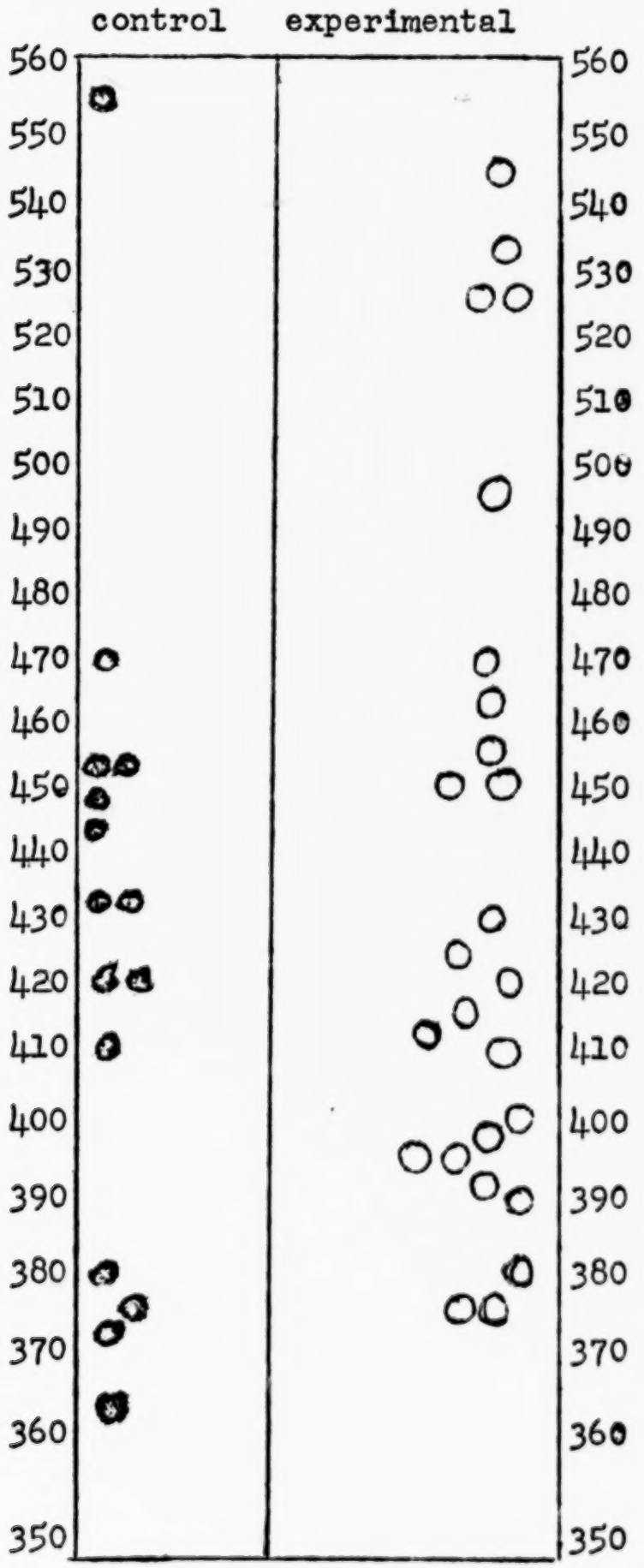
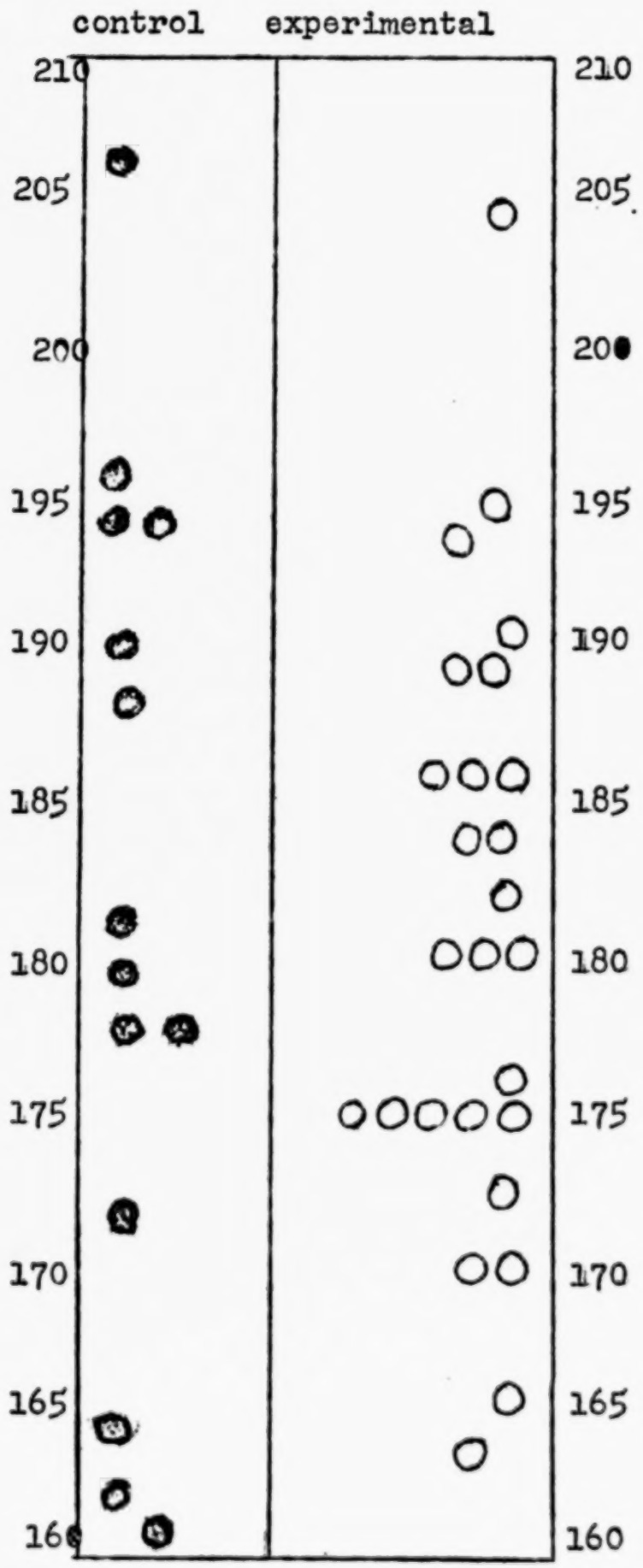


Figure 3
Individual Scores on the Cooperative French Listening Comprehension Test



Each symbol ● represents one subject in the Control Class, Fall 1958

Each symbol ○ represents one subject in the Experimental Class, Winter, 1959

Figure 4
Individual Scores on the
Antioch Placement Test

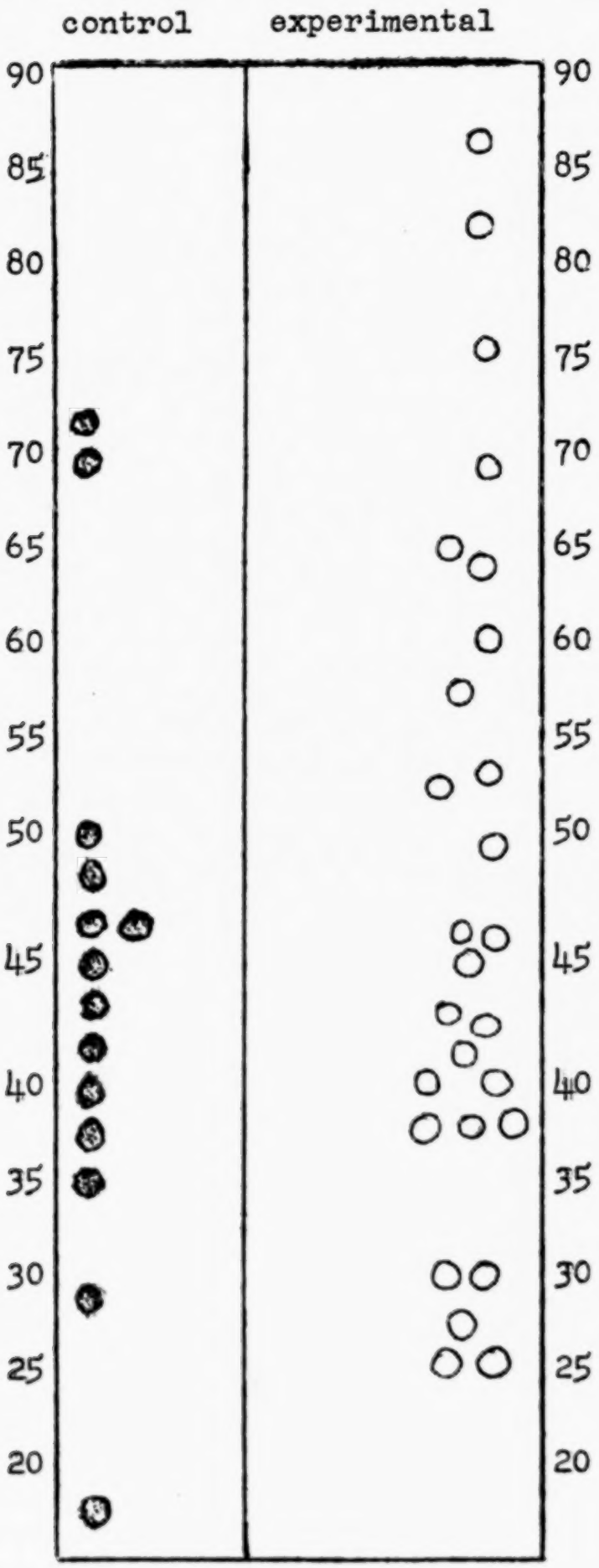
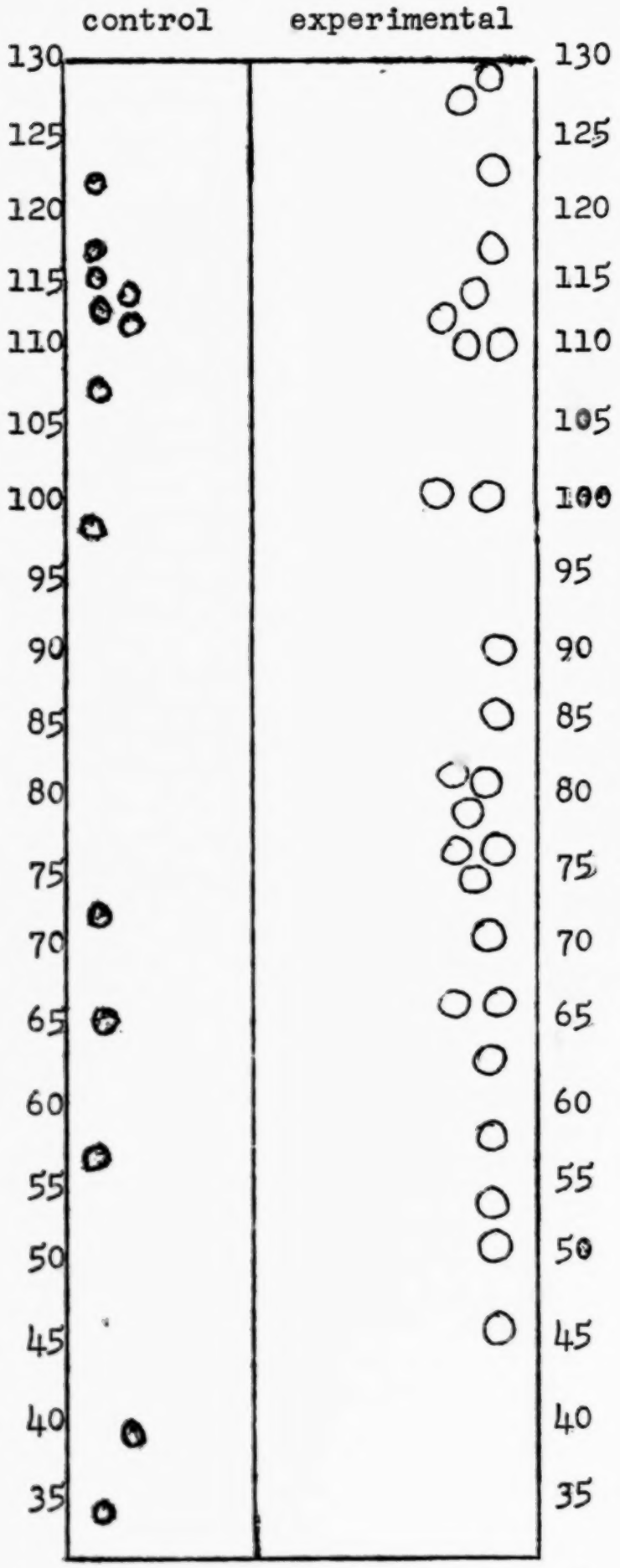


Figure 5
Individual Scores on the
Antioch Dictation Test



Each symbol ● represents one subject in the Control Class, Fall 1958

Each symbol ○ represents one subject in the Experimental Class, Winter, 1959

VII. Summary and Conclusions

The two classes were not found to be significantly different on any of the tests and instruments used to determine comparability. In terms of the analysis of group composition, the control group had a higher proportion of students who had some background experiences in French, and a higher ratio of upperclass students to freshmen than did the experimental group. We may conclude, then, that while the groups were comparable with respect to the overall measures of scholastic ability, language aptitude, and French language skills at the time of taking the course, if any differences existed between the two classes, the differences were in favor of the control group which was composed of a greater ratio of more experienced students.

The achievement level results do not seem to provide any evidence which indicates that the control class had achieved significantly better than the experimental class. There is, in fact, some evidence to suggest that the experimental group had generally performed better than the control group: in the fact that the mean scores of the experimental group (Table 4) exceeded those of the control group in six of eight measures employed, and in that in one of these instances these differences approached significance (Test of Reading Ability); in the gain results which indicate that the students who had some background in French profited more from the procedures used in the experimental class than a similar group of students in the control class, and in the graph analysis of the data which illustrates the generally better achievement among the subjects of the experimental class.

In general, the satisfactions of a comparable control class were not as high as they were for the experimental class. The differences were not statistically significant. The comments of the students showed insight into the implications of the new procedures and general enthusiasm for these procedures.

Certain results point to areas in the experimental procedures which need attention in the forthcoming stages of the research:

1. Some system is needed whereby the students may have immediate feedback on their achievement. In a conventional class these seem to be provided through inter-personal exchanges with the instructor. When the instructor is removed, as is the case with experimental procedures used in this study, then some system of feedback is necessary, indeed essential. This appears to be needed more for the poor achievers than the better achievers. In the forthcoming year a system of achievement feedback will be built into the procedures as a method of providing ongoing evaluation.

2. Many of the learning materials need to be modified either to raise the quality of the finished product or to adapt it to the needs and demands of the situation.

3. It became evident that certain individuals appeared to enjoy the experimental procedures while others appeared to struggle against them. The question has been raised as to the possible effect different teaching procedures have on individual personality structures. It is hoped that some research in this area may be undertaken within the near future.

4. Much more use will be made of the afternoon laboratory sessions for those students who need help. Methods by which such sessions will be established will be worked out prior to the course and adapted as changes are called for.

VIII. Implications

As a first try the results of the study offer encouragement both as to learnings that may be achieved and some very real economies that may be realized through the employment of these newer methods of language instruction. Certainly they point to learnings at least equal, and in some instances superior, to that of the conventional teaching process. What is more, they offer evidence that students find this newer method of teaching at least as satisfying a way of learning as they did the conventional method. A critical test of these newer methods will come during the 1960-1961 school year when some sixty students will be taught by the experimental procedures: all as one class group and at an instructor-class contact hour "cost" of three or four hours per week as compared with what would have been a figure of fifteen contact hours per week were these students to be handled by the regular teaching procedures. Should the methods continue to prove successful, the College plans to adapt them to other levels and areas of language instruction and to make the materials available to other institutions. It also hopes that it may be able to adapt the materials for language instruction at the secondary school level.

One closing note needs to be added here as to the motivation behind this research and the College's view in promoting research of this kind. Its rationale lies in several bases: in the pressure the College has been feeling to make more effective use of its instructional staff and facilities; in the College's desire to discover new ways to add to the quality of the students' learning experience; in its belief in the students and their readiness to accept a far greater share of the responsibility for their own learning than we have heretofore given them; in its desire to reduce the "detail burden" of the instructor and to open up avenues for independent work and his own development as a teacher, and in its desire to stress a point of view in teaching and learning which presses for some occasional, if not frequent, "shaking up" of the teaching process and some examination and evaluation of what we are achieving in the classroom.

Certainly much of the impetus for research of this kind and other similar researches has come from the present emphasis on the more effective utilization of our teaching resources. It would be a mistake, however, to orient oneself solely to this objective or to view this objective as the principal purpose of such research, for the meaning of these researches is far deeper than simply discovering ways by which we can teach more students with more economy. Of crucial importance in all of this experimentation is the question of the students' educational experience and the ways by which learning really takes place. No study can afford to give second place consideration to this element in its search for new economies; nor does it follow that these economies will necessarily be harmful to the learning process. In fact, there is some evidence to suggest that far from being mutually contradictory goals which pose opposite pulls for the teacher and the administration, these objectives may well go hand in hand.

Appendix, Item 1

Sample of Acetate Visual

Explanatory Note:

The accompanying transparency is an example of the type of acetate lesson material used with the experimental class. An assistant places each acetate cell on the projector and at times points out various parts of the pictures to the class. The acetate material is accompanied by tape recorded sound, with the class repeating chorally the content of the sound tape.

This acetate is from a lesson unit dealing with a French restaurant scene. Similar lessons were constructed for a tour of Paris: the nature of the city, transportation, commerce, a shopping expedition, the procedure for renting a house, the use of a library, and for a variety of other topics.

The sample shown here was prepared from a drawing on tracing paper and copied onto the sheet film used in the Bruning Copyflex machine. For single-unit productions as used in the course, each one was drawn directly on an acetate sheet using Pelikan inks and Bourges translucent overlay material. The original transparencies are quite vivid. Lesson units varied in length but averaged about twenty acetate visuals per unit. A total of eighteen lesson units was prepared.

IL Y A LE BOUILLON

OU LE CONSOMMÉ

LIQUIDE CLAIR ··· CHAUD OU FROID

QUELQUES POTAGES CONTIENNENT DES LÉGUMES ET PARFOIS DES MORCEAUX DE VIANDE.

IL Y A DES SOUPES QUI CONSTITUENT DES REPAS COMPLETS. LES VOICI ··· ÉCOUTEZ!

L'oignon
La bouillabaise
La vichyssoise

QUEL EST VOTRE CHOIX ?

Survey of Student Opinion of Teaching

NAME OF INSTRUCTOR | COURSE AND NUMBER | CREDIT

YOUR FIELD | YEAR IN COLLEGE | YOUR SIGNATURE

The main task of the college is teaching. It is of first importance that the college be contiruously informed of the quality of its teaching and the respects in which that teaching can be improved. Students are in a position to judge the quality of teaching from direct experience.

You are being asked to indicate your opinion of your instructor in this course. In order to do so, first fill in the blanks with the names of five teachers you have had at Antioch, not including your instructor in this course. Choose one who is most satisfactory, one who is above average, one who is average, one whose teaching is below average, one whose teaching is least satisfactory. Write in these names in the order of their total effectiveness as teachers from best to poorest. Be sure to fill in every space, using a different name in each one.

MOST SATISFACTORY:
ABOVE AVERAGE:
AVERAGE:
BELOW AVERAGE:
LEAST SATISFACTORY:

You are to compare your instructor in this class with the five teachers you have just listed. Draw a circle around the number that indicates his position with respect to the other five. His name will make the sixth, so that he can be assigned any number from 1 (better than anyone on the list) to 6 poorer than anyone on the list).

Do this for each of the five qualities, making each answer a separate judgment. Obviously in only extremely rare cases will the circled number be the same for all qualities.

1. Gets you interested in his subject..... 1 2 3 4 5 6

2. Makes learning active for you, as by stimulating thinking, encouraging participation, guiding discussion..... 1 2 3 4 5 6

3. Knows subject thoroughly enough to organize course and relate it to others, integrate material, answer questions.... 1 2 3 4 5 6

4. Displays an active, personal interest in you as by being easy to approach, patient, willing to help..... 1 2 3 4 5 6

5. Presents what he has to say clearly, at your level of understanding..... 1 2 3 4 5 6

Write in your own words your general comment on his teaching in this course (use the back of the sheet, also, if you wish).

_____

_____

_____

Appendix, Item 3

Background Data Sheet

Name_____ Age____ Sex_____

High School (last attended)_____

1. Did you have French in Elementary School? yes no

2. If your answer was YES to (1), how long did you have French?

_____
years months

3. Did you take French in Junior High School? yes no

4. If your answer was YES to (3), how long did you take French?

_____
years months

5. Did you take French in Senior High School? yes no

6. If your answer was YES to (5), how long did you take French?

_____
courses (levels)

7. Have you ever traveled in French speaking countries? yes no

8. To what extent? _____

9. Did you learn to speak the language? no slightly moderately fluently

10. Do your parents speak French? Mother yes no
Father yes no

11. Do you speak French at home? yes no

12. Do you speak any language besides English at home? yes no

13. If you answer YES to (12), which other language(s) do you speak at home? _____

14. Have you taken private lessons in French? yes no

15. If your answer was YES to (14), how much French did you cover?

_____

16. Can you read French? no slightly moderately fluently

17. Is there any other information that would help us in evaluating the experiences you have had in modern foreign languages? Please elaborate.